

REMARKS

Claims 1-36 and 40-62 are pending. Claims 1, 3, 4, 6-9, 14, 16, 18, 21-24, 26, 27, 29-34, 41-45, 49, 50, 52-54, 58 and 60 are amended. Claims 37-39 were previously canceled. Claims 2, 13, 19, 20, 35 and 40 are canceled herein.

In the Office Action, claims 1-7, 10-13, 15, 17-27, 33-36, 41-47, 54 and 59-62 were rejected as anticipated by U.S. Patent Number 6,035,020 (Weinstein). Claim 8 was rejected as obvious over Weinstein in view of U.S. Patent Number 5,085,913 (Wong). Claims 9, 28-30, 40 and 56 were rejected as obvious over Weinstein in view of U.S. Patent Number 6,259,699 et al. (Opalka). Claims 14 and 53 were rejected as obvious over Weinstein in view of U.S. Patent Number 6,083,280 (Eitel). Claims 16 and 55 were rejected as obvious over Weinstein in view of U.S. Patent Number 6,480,487 (Wegleitner). Claims 48-52 were rejected as obvious over Weinstein in view of U.S. Patent No. 6,163,599 (McHale). Claims 31, 32, 57 and 58 were rejected as obvious over Weinstein in view of Opalka and Wegleitner.

In view of the following arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete response to the Office Action.¹ Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2).

¹ As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome the present rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future. Further, Applicants do not necessarily agree with or acquiesce to the Examiner's characterizations of the scope and meaning of their claims.

I. Rejections under 35 U.S.C. § 112

The Examiner rejected claim 40 based on its dependence from canceled claim 39. Claim 40 is now canceled, and the rejection therefore should be withdrawn.

II. Rejections under 35 U.S.C. § 102

A. Independent Claims 1, 18, and 27

Claim 1 recites:

A method comprising:
receiving, from a customer premises terminal via a local link to a line unit in a switched telephone network, a request for a communication path to a destination;
establishing a communication path from said local link through a concentrator network in said line unit;
controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit;
using said detector to identify a data sequence generated by said terminal; determining based on said data sequence that said request does not seek conversion in said line unit; and
responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network.

Weinstein does not teach or suggest all of the elements of claim 1, as explained below. For purposes of the foregoing arguments and without conceding that claims 1, 18, and 27 are or not of like scope, claim 1 is representative of claims 18 and 27.

1. “controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit”

The Examiner asserted that the “scanning device” of claim 1 is anticipated by Weinstein’s switch 120, stating that “[s]witch 120 acts as a scanning device since it selectively connects either PC 122 or other devices 121 from the local link to the signal detector” (Office Action, page 3). However, Weinstein discloses switch 120 within a subscriber premises, stating that “a subscriber switch 120 connects the subscriber line 110 to a personal computer (PC) with a modem or to other

devices, such as a telephone or a facsimile machine.” (Weinstein, col. 4, lines 17-19). Further, Weinstein explained that, “[t]ypically, the switch 120 is built into PCs.” (Weinstein, col. 4, lines 23-24). Therefore, Weinstein’s switch at most connects devices from within the customer premises to a subscriber line at the customer location when a call is presented for switching (Weinstein, Fig. 1; col. 4, lines 15-23). Weinstein’s switch performs no “scanning.” Weinstein’s switch is not a “scanning device.” Further, Weinstein’s switch is within the customer premises; therefore it cannot be “associated with said line unit.” Similarly, Weinstein’s switch is also not a “detector [] associated with said line unit.”

Because Weinstein’s switch is not associated with the line unit, and does nothing more than switch devices onto a subscriber line within the customer premises, it is not “a scanning device . . . associated with said line unit,” nor is it a “detector . . . associated with said line unit.” Further, Weinstein’s switch certainly does not control “a scanning device to selectively connect a detector to said local link, wherein the . . . detector [is] associated with said line unit.” Therefore, switch 120 does not anticipate any recitation of claim 1 for at least the foregoing reasons.

2. “scanning device and detector”

In addition to the above deficiencies, Weinstein does not teach or suggest a “scanning device and detector.” At most, Weinstein discloses a Dual Tone Multiple Frequency (DTMF) detector that “receives and detects tones” and “outputs the digital dialing sequence” (Weinstein, col. 4, lines 55-57). In other words, the DTMF is an analog to digital converter. A data call prefixer uses the “digital dialing sequence” from the DTMF to “identify a prefix that precedes a data call telephone number” (Weinstein, col. 4, lines 57-59). These two devices, the DTMF and the data call prefixer, merely isolate the dialing prefix and do not either alone or together operate as a “scanning device and detector.” Claim 1 is further patentable for at least this reason.

3. “controlling a scanning device to selectively connect a detector to said local link”

Weinstein further does not teach or suggest “controlling a scanning device to selectively connect a detector to said local link.” The Examiner asserted that Weinstein’s switch 120 “acts as a scanning device” that connects devices “from the local link to the signal detector (DTMF receiver

123 and prefix recognizer 125).” (Office Action, page 3). However, as described above, switch 120 connects devices to a local link, and does not connect devices to a signal detector. Furthermore, even if Weinstein’s switch 120 connected devices to the signal detector (which it does not), the switch would not “connect a detector to said local link.” Assuming *arguendo*, as the examiner asserted, that the DTMF receiver and prefix detector are the “detector” of claim 1, Weinstein still would not teach or suggest to “connect [the] detector to said local link.” Weinstein does not teach or suggest that the DTMF receiver and prefix recognizer are ever disconnected from the local link and as such there would not be a need to connect them.

Moreover, not only is Weinstein’s switch 120 not a “scanning device,” as discussed above, Weinstein does not teach or suggest a “scanning device” at all. Weinstein discloses at most a line card connected to a local link, and a switch 130 in the line card (Weinstein, Fig. 1-4). The switch is normally closed to the voiceband path (Weinstein, col. 3, lines 24-25; col. 7, lines 40-41; col. 10, lines 17-23). If Weinstein’s DTMF receiver/data call prefixer isolates a data call dialing prefix, then the switch is moved to the data call path position (Weinstein, col. 7, lines 36-40). No “scanning” occurs at all, much less scanning by a “scanning device” which is able to “selectively connect a detector to said local link.” Claim 1 is further patentable for at least this reason.

4. “establishing a communication path from said local link through a concentrator network in said line unit . . . determining . . . that said request does not seek conversion in said line unit; and responsive to said determination connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network”

Weinstein discloses first determining whether a call is a data call or a voice call, and then connecting the subscriber line to a data call concentrator, if appropriate based on the determination (Weinstein, Fig. 1; col. 5, lines 25-37 and 62-63). Weinstein discloses two different concentrators, one associated with the voice switch and one associated with the router/data switch (Weinstein, Fig. 1; col. 5, lines 62-65). The line card connected to the subscriber line first determines what type of call is requested: if it is a voiceband call it remains routed to the voiceband concentrator; if it is a data call it is routed to the data call concentrator (Weinstein, col. 7, lines 29-41). In contrast, claim 1 recites “establishing a communication path from said local link through a concentrator network,”

and “determining . . . that said request does not seek conversion in said line unit” and “connecting said communication path from said concentrator network . . . to a wide band data switch.” Because Weinstein makes a determination regarding voiceband call versus data call and responsive to the determination routes the call to one of the two concentrators, Weinstein cannot teach or suggest to “responsive to said determination [connect] . . . from said concentrator.”

For at least the stated reasons, claim 1 is patentable over Weinstein and should be allowed.

Therefore, for at least the reasons stated above, claims 18 and 27 are patentable over Weinstein and should be allowed. All claims depending from the foregoing independent claims are similarly patentable.

B. Independent Claim 41

Claim 41 recites

A line unit for a switched telecommunications network comprising trunked together program controlled switches connected to subscriber premises by local links connected to the line unit, said line unit comprising:

a line concentrator network for connection to a plurality of local links, said concentrator network including switches, and a high bandwidth port;

customer interface hardware; a converter for converting signals on the plurality of local links to digital signals at a predetermined narrowband bit-rate;

a scanning device that is configured to sequentially connect to at least one of said plurality of local links; and

a monitor in communication with said scanning device, wherein the monitor is configured to, upon detecting a pre-designated signal on a local link connected within said sequence, generate an output signal to said concentrator network to cause said concentrator network to provide a connection to said port for signals on said link.

For reasons similar to those stated above concerning claim 1, claim 41, and all claims depending therefrom, are patentable over Weinstein. Further, claim 41 and its dependent claims are patentable over Weinstein for the following additional independent reasons.

1. “a scanning device that is configured to sequentially connect to at least one of said plurality of local links”

Weinstein does not teach or suggest “a scanning device,” as stated above, and therefore does not teach or suggest “a scanning device that is configured to sequentially connect to at least one of said plurality of local links.” As stated above, Weinstein discloses at most a local link connected to a line card and making a determination, in the data call prefixer based on the signal on that local link, whether or not to disconnect the switch from the voiceband path and connect it to the data call path. Not only does Weinstein’s data prefixer not perform a scanning function on Weinstein’s one local link, it cannot “sequentially connect to . . . [a] plurality of local links.” Indeed, Weinstein provides no teaching or suggestion of a “plurality of local links,” much less a device “configured to sequentially connect to a plurality of local links.”

2. “a monitor in communication with said scanning device, wherein the monitor . . . generate[s] an output signal to said concentrator network to cause said concentrator network to provide a connection to said port”

The Examiner asserted that Weinstein’s prefix detector is the “monitor” of claim 41 (Office Action, pages 8-9). However, as described in detail above, Weinstein does not teach or suggest a scanning device. Therefore, Weinstein also cannot teach or suggest “a monitor in communication with said scanning device” and as such the prefix detector cannot be the “monitor.” The Examiner also stated that the prefix detector provides “an output signal to said concentrator network to cause said concentrator network to provide a connection to said port.” However, the prefix detector is not the monitor, and claim 41 recites that “the monitor . . . generate[s] an output signal.”

As stated above, Weinstein discloses determining if the call is a voiceband or a data call, then controlling a switch on the line card to route the call to the appropriate concentrator. The claim 41 recitation that the “concentrator . . . [provides] a connection to said port” is different than Weinstein’s disclosure that the line card provides a connection to one or the other concentrator. As described above, Weinstein discloses two concentrators, one for voiceband calls and one for data calls. Weinstein’s prefix detector causes the line card to provide a connection to the data call concentrator. (Weinstein, Fig. 1; col. 5, lines 4-5). In contrast, claim 41 recites that “the monitor . . . [causes] the concentrator network to provide a connection to said port.”

For at least these reasons, claim 41 and its dependent claims are patentable over Weinstein.

C. Independent Claims 46, 48, 53, 54, 56

For reasons similar to those stated above concerning claims 1 and 41, and without conceding that the claims are or are not of like scope, claims 46, 48, 53, 54 and 56 are patentable over Weinstein and should be allowed.

D. Independent Claim 59

Claim 59 recites

A method comprising:
receiving a signal via a local link from customer premises in a telecommunications network connected by said local link to a program controlled switch in said telecommunications network;
wherein the program controlled switch is configured to scan each of a set of local links;
scanning said local link to provide monitoring of said signal;
making a determination, via a monitor, regarding a pre-established characteristic of said signal; and
responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device, wherein said processor is separate from said wide band edge device, wherein said processor performing said digital signal processing is associated with a line unit through a portion of which said signal is conducted.

For reasons similar to those stated above concerning claim 1 and 41, and without conceding that the claims are or are not of like scope, claim 59 is patentable over Weinstein. Further, claim 59 and the claims depending therefrom are patentable over Weinstein for the following additional independent reasons.

Weinstein does not teach or suggest that the “processor . . . is associated with a line unit.” Rather, Weinstein discloses routing signals from a plurality of line cards to a data call concentrator (Weinstein, Fig. 1; col. 5, line 66-67), and then to a modem bank and then to a data switch or router (Weinstein, Fig. 1; col. 6, lines 18-20). Signal processing is performed after the concentrator (Weinstein, col. 5, lines 66-67). Because Weinstein’s signal processor is at most associated with the

concentrator, and the concentrator is between the processor and the line unit, the processor cannot be "associated with a line unit."

Accordingly, Weinstein cannot teach or suggest the foregoing recitation of claim 59, and claim 59 and its dependents are patentable over Weinstein.

For at least the reasons stated above, independent claims 1, 18, 27, 41, 46, 48, 53, 54, 56 and 59 are patentable over Weinstein. At least by virtue of their dependence from patentable independent claims, the associated dependent claims are also patentable over Weinstein.

CONCLUSION

All rejections have been addressed. In view of the above, the presently pending claims are believed to be in condition for allowance. Accordingly, reconsideration and allowance are respectfully requested and the Examiner is respectfully requested to pass this application to issue. It is believed that any fees associated with the filing of this paper are identified in an accompanying transmittal. However, if any additional fees are required, they may be charged to Deposit Account 18-0013, under order number 65632-0140. To the extent necessary, a petition for extension of time under 37 C.F.R. 1.136(a) is hereby made, the fee for which should be charged against the aforementioned account.

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